Ottawa Region Sample - BOARD IMPROVEMENT PLAN FOR STUDENT ACHIEVEMENT - Numeracy

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| **PLAN, DESIGN AND IMPLEMENTATION STRATEGIES** | | | | | | **MONITORING STRATEGIES** | | | |
| **Needs Assessment**  **and**  **Analysis of Data**  **Mathematics**:  For the 2009‐2010 school year, June **report card results in mathematics** indicated:   68% of primary students achieved at level 3 or 4 (70% of students in grade 1, 68% of students in grade 2, 67% of students in grade 3)   63% of junior students achieved at level 3 or 4 (66% of students in grade 4, 62% of students in grade 5, 61% of students in grade 6)   58% of intermediate students achieved at level 3 or 4 (56% of students in grade 7, 59% of students in grade 8)  For the 2009‐2010 school year, the **EQAO mathematics assessments** indicated:   66% of students in grade 3 achieved at level 3 or 4 (66% in 2008‐2009, 63% in 2007‐2008)   56% of students in grade 6 achieved at level 3 or 4 (56% in 2008‐2009, 54% in 2007‐2008)   The proportion of participating grade 3 students with special education needs increased to 85% (78% in 2008‐2009)   35% of students with special education needs in grade 3 achieved at level 3 or 4 (39% in 2008‐2009)   The proportion of participating grade 6 students with special education needs increased to 86% (80% in 2008‐2009)   25% of students with special education needs in grade 6 achieved at level 3 or 4 (21% in 2008‐2009)   The achievement gap between male and female students in grade 3 and 6 mathematics is 1% and 5% (2% and 4% in 2008‐2009)   Overall, the achievement gap between male and female students in grade 3 is improving over time. In both grade 3 and 6 writing the achievement indicates improvement for both genders while the gap closes | **SMART Goals**  In mathematics, the overall student achievement will improve by at  least 4% of all students reaching the provincial standard as  evidenced on report cards through a sustained and deliberate focus  on problem solving. By June 2011, this will result in at least 72%  (from 68%) of Primary students, 67% (from 63%) of Junior students,  and 62% (from 58%) of Intermediate students meeting or exceeding the provincial standard on report cards. | **School Effectiveness Framework Indicators**  1.2 During learning, students receive ongoing, descriptive feedback based on the success criteria, from the teacher and from peers.  1.3 Students are taught, and regularly use self‐assessment skills to monitor their progress toward achieving learning goals, and to set their own learning goals within the context of the Ontario curriculum and/or Individual Education Plan  1.4 Assessment tasks are aligned with the curriculum, collaboratively developed by teachers and the resulting demonstrations of student learning analyzed to ensure consistency with success criteria.  1.5 A variety of valid and reliable assessment data is used by students and teachers to continuously monitor learning, to inform instruction and assessment and to determine next steps.  1.6 Assessment of learning provides evidence for evaluating the quality of student learning at or near the end of a period of learning.  1.7 Ongoing communication is in place to allow students, teachers and parents to effectively monitor student learning. | **Targeted, Evidence-Based Strategies/Actions**  Through the teaching‐learning cycle for literacy and  mathematics, elementary teachers will differentiate  learning and assessment for all students by  1. Selecting applicable curriculum expectations   *clearly identify a curriculum‐based learning goal and*  *share a clear understanding with students*   *uses a comprehensive literacy program to develop the*  *four roles of the literate learner*   *focus on teaching through the mathematical*  *processes with an emphasis on the three‐part lesson*  2. Assessing before learning   *identify individual student learning needs through*  *effective questioning, analysis of data, student work*  *and moderation*   *co‐create success criteria with students to specifically*  *describe the successful attainment of the learning*  *goal*   *consistently use co‐created anchor charts to model*  *and scaffold learning and set high expectations for*  *students*   *use a wide variety of resources which are relevant,*  *current, accessible and inclusive to engage all*  *students in their learning*   *teach through problem‐solving* | **Resources**  Many Roots Many  Voices   Supporting English  Language Learners   Think Literacy   Tools for high quality  differentiation   A Guide to Effective  Instruction in  Mathematics   Big Ideas by Dr.  Small   Making Math  Meaningful   Ontario Numeracy Assessment Package  (ONAP) | **Professional Learning**  Elementary teachers and  leaders will participate in jobembedded  professional  learning focused on improved  student achievement:   Networking   Teaching‐Learning  Critical Pathway   CIL‐M  Elementary teachers and  leaders involved in District  Reviews, Schools in the  Middle, OFIP 1 and 2, Student  Work Study, and  Collaborative Inquiry for  Learning ‐ Mathematics will  participate in professional  learning focused on critical  thinking skills.  Elementary Principals and  Vice Principals will participate  in monthly professional  learning through the Leading  Student Achievement Project | | **Monitoring of the achievement of the SMART goals**  Student data from the  following will be collected and  analyzed by the Board and  schools to monitor student  achievement in critical  thinking:   elementary report cards in  February and June 2011.   EQAO Primary and Junior  assessments in August  2010   literacy and numeracy  pathway data in January  2011   marker student work  samples in October 2010,  January and May 2011    Analyze semester 1 secondary  report card data in March  2011. | **Responsibility**  Director   Supervising  Principal of  Student Success   Supervising  Principal ‐ School  Effectiveness   Supervising  Principal of  Special Education   Superintendents  of Elementary  and Secondary  Programs   Language literacy  consultants   Professional  learning leader   MISA lead  consultant   Special education  program  coordinator   Elementary  school  administrators   Secondary school  principals   Student success teams | **Evaluation**  Following the analysis of board and EQAO data, reporting to our school community will take place through:   Reporting to schools   Board and school websites   Education/HR meetings   The Director’s Annual Report   School newsletters   Success For All, Strategic Directions |
| **Needs Assessment**  **and**  **Analysis of Data**  **Mathematics:**   For the 2009/10 school year, 50% (+4) of students taking grade 10 applied mathematics and 66% (+9) of students taking locally developed mathematics achieved at level 3 or 4 on report cards. In grade 9 mathematics, 54% (+5) of students taking  applied mathematics and 56% (‐2) of students taking locally developed mathematics achieved level 3 or 4.   Of students with special needs writing the applied EQAO mathematics assessment, 36% achieved level 3 or 4 in 2009‐10, an increase of 1% since 2008‐09, and x% above the provincial average (update on Sept. 14). Of students with special needs  writing the applied assessment, 84% received 1 or more accommodations, up from 32% reported in 2008‐09.   Of students with special needs writing the academic EQAO mathematics assessment, 61% achieved level 3 or 4 in 2009‐10, a decrease of 4% since 2008‐09, and x% above the provincial average (update on Sept. 14). Of students with special needs  writing the applied assessment, 70% received 1 or more accommodations, up from 57% reported in 2008‐09.   *Update with more information for students with special needs once available on Sept. 29th.*   For the 2009‐10 school year, the provincial standard results for schools offering grade 9 and 10 applied and locally developed Mathematics were as follows:   MFM 1P – at least 60% of students achieved the provincial standard in 4 out of 11 schools. The proportion of LDSB students achieving the provincial standard was 42% in 2007/08, 49% in 2008/9, and 54% in 2009/10   MAT 1L – at least 65% of students achieved the provincial standard in 5 out of 11 schools. The proportion of LDSB students achieving the provincial standard was 56% in 2007/08, 59% in 2008/9, and 56% in 2009/10   MFM 2P – at least 60% of students achieved the provincial standard in 1 out of 11 schools. The proportion of LDSB students achieving the provincial standard was 39% in 2007/08, 45% in 2008/9, and 50% in 2009/10   MAT 2L – at least 65% of students achieved the provincial standard in 7 out of 11 schools. The proportion of LDSB students achieving the provincial standard was 57% in 2007/08, 57% in 2008/9, and 56% in 2009/10 | **SMART Goals**  In all secondary schools, student engagement in problem‐solving,  reasoning and communicating their thinking in mathematics will  improve. As a result, student attitudes towards mathematics will  improve, with at least 75% of all students reporting that they like  mathematics and are good at mathematics on grade 9 EQAO  student surveys by 2011/12 in all 11 secondary schools. The interim  goal for 2010/11 is for 65% of students writing the academic  assessment, and 55% of students writing the applied assessment to  report that they like mathematics and are good at mathematics.  Also, at least 75% of all students will reach the provincial standard  on report cards in grade 9 and 10 applied and locally developed  Mathematics courses by 2011/12. For the 2010/11 school year, the  interim goal is for 68% of students taking grade 9 and 10 applied and  locally developed Mathematics to reach the provincial standard on  report cards in all 11 secondary schools. | **School Effectiveness Framework Indicators**  2.1 Collaborative instructional leadership builds capacity to strengthen and enhance teaching and learning.  2.4 Job‐embedded and inquiry‐based professional learning builds capacity, informs instructional practice and contributes to a culture of learning.  2.5 Staff, students and school community promote and sustain student well‐being and positive student behaviour in a safe and healthy learning environment.  3.1 The teaching and learning environment is inclusive and reflects individual student strengths, needs and learning preferences.  3.3 Students are partners in conversations about school improvement.  4.1 A culture of high expectations supports the belief that all students can learn, progress and achieve.  4.2 A clear emphasis on high levels of achievement in literacy and numeracy is evident throughout the school.  4.4 Learning is deepened through authentic, relevant and meaningful student inquiry.  4.5 Instruction and assessment are differentiated in response to student strengths, needs and prior learning.  4.7 Timely and tiered interventions, supported by a team approach, respond to individual student learning needs. | **Targeted, Evidence-Based Strategies/Actions**  3. Planning and implementing high‐yield instructional  strategies   *through descriptive feedback, provide precise*  *information about student strengths and specific*  *steps to improve learning*  4. Assessing during learning   *develop student self assessment skills by modelling*  *the application of success criteria and descriptive*  *feedback for peer and self‐assessment*  5. Adapting or adjusting the instruction   *use performance walls to provide students with*  *explicit feedback for student improvement*  Secondary teachers will incorporate assessment for  learning practices to meet the needs of learners. Specific  strategies will include:   providing students with a clear and understandable  vision of the learning goal   using exemplars and anchors of student work   providing regular specific and descriptive feedback   teaching students to self‐assess and to set goals   designing lessons specifically related to learning goals  and enduring understandings   teaching students focused revision   engaging students in self‐reflection | **Resources**  Human Resources   SEF Leader   Program Team  consultants   Professional  Learning Leader   MISA Leader   Program Leader ‐  Technology   Language Literacy  Coaches   Mathematical  Literacy Coaches   Student Work Study Teacher   Numeracy Facilitator   Principals and Viceprincipals   Support Staff   Teachers   LDSB Inter‐ | **Professional Learning**  Grade 7‐10 teachers will  engage in professional  learning related to the  Differentiated Instruction  RAFT plan.  NTIP teachers will participate  in professional learning and  mentoring with a focus on  instructional strategies.  Teachers in secondary  schools will have  opportunities to engage in  subject‐specific design‐down  planning, and to engage in  differentiated learning  related to assessment and  evaluation practices.  Grade 7‐10 teachers will take  part in professional learning  related to the differentiated  instruction RAFT plan. | | **Monitoring of the achievement of the SMART goals**  By December 10 & May 16 all  secondary administrators will  meet with the Superintendent  of Education to analyze the  implementation of their school  improvement & professional  learning plans.  Analyze and report on EQAO 9  data and report card data from  the 2009/10 school year in  September 2010.  By May 2011, measure the  effectiveness of professional  learning provided to grade 7‐12  teachers in selected schools,  related to teaching through  problem‐solving in shifting  instructional practices using  teacher self‐report surveys, as  well as samples of student  work, and classroom practice  artifacts  Track requests for TIPS4RM  resources by grade 7‐10  teachers in September and  February. Monitor the extent  to which the sequence and  scope of TIPS4RM resources  are used through a teacher  survey administered to those   * teachers requesting copies. | **Responsibility** | **Evaluation** |
| **Perceptual Data:**  **Mathematics:**   EQAO student survey responses in grade 9 indicate that 38% of students taking applied mathematics agree that they like mathematics and 41% agree that they are good at mathematics. Of students writing the academic mathematics assessment,  55% agree that they like mathematics, and 55% agree that they are good at mathematics. *Add provincial comparison once available on September 14th.*   *Update information from EQAO teacher surveys once they become available on Sptember 29th, 2010.* |  | 5.1 Programs, pathways, and career planning meet the learning needs and interests of all students.  5.2 Authentic learning experiences and experiential learning are built into all subject areas and programs.  5.3 Students, parents, and teachers understand the full range of pathways, options, programs and supports that are available. | Secondary teachers will use differentiated instruction  strategies to meet the needs of learners. Specific  strategies will include:   use of open questions and parallel tasks in  mathematics   use of flexible groupings for instruction   provision of student choice in demonstrating learning   adjusting the learning environment  Secondary teachers will explicitly teach higher‐order  thinking skills through the gradual release of responsibility  model, with the following components:   sharing the learning goal   modeling learning processes   using guided practice   checking for understanding   fostering independent practice  Secondary mathematics teachers will focus on teaching  through the mathematical processes with an emphasis on   using the three‐part lesson (minds‐on, action,  consolidation)   questioning for understanding   teaching through problem‐solving   using concrete manipulatives and technology   effectively implementing the TIPS resources in grade  9 and 10 applied mathematics |  | Professional learning related  to teaching through the  mathematical processes with  an emphasis on the threepart  lesson, questioning  techniques, providing  effective feedback, teaching  through problem‐solving and  use of concrete  manipulatives in grade 7‐12  families of schools.  Professional learning for a  group of teachers showing  readiness for the use of the  ONAP diagnostic assessment  in grades 7 8, and 9.  Secondary school  administrators and teachers  will take part in professional  learning designed to assist  with the implementation and  monitoring of research‐based  instructional strategies, and  target setting for school  improvement plans.  Secondary school  administrators and teachers  will take part in professional  learning designed to assist  with the implementation of  effective assessment and  evaluation practices. | |  |  |  |